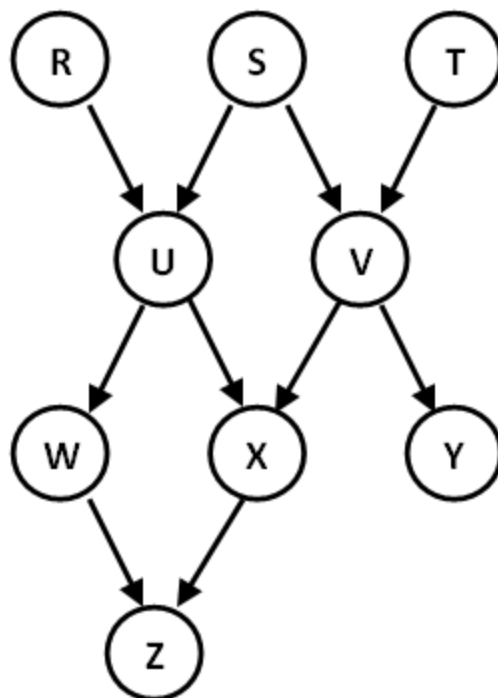


D-Separation Examples

Consider the following Bayes Net graph:



Determine for each statement below, whether or not it is guaranteed to be true, based on D-Separation. If not guaranteed, give at least one active path that prevents the guarantee.

1. $R \perp S$ *Guaranteed*
2. $U \perp T \mid V$ *Not, USVT*
3. $R \perp T \mid U, V$ *Not, RUSVT*
4. $R \perp T \mid W$ *Guaranteed*
5. $R \perp T \mid W, V$ *Not, RUSVT*
6. $X \perp T \mid U, V$ *Not, XV T*
7. $S \perp T \mid Z$ *Not, SV T*

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